COMPARISON OF DIFFERENT BEDSIDE SCORES IN PREDICTING HEPATOCELLULAR CARCINOMA RECURRENCE POST TRANS-ARTERIAL CHEMOEMBOLIZATION

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Introduction

- **Hepatocellular carcinoma (HCC)** is one of the most common malignancies with high morbidity and mortality
- The use of **inflammatory** and **molecular biomarkers** have been advocated to predict the **prognosis in HCC patients** after surgical hepatectomy
- However, little work has been done to evaluate the use of these inflammatory markers in predicting post **Trans-Arterial Chemoembolization(TACE)** HCC recurrence

Aim

- To compare different non invasive bed side scores in predicting hepatocellular carcinoma recurrence post TACE

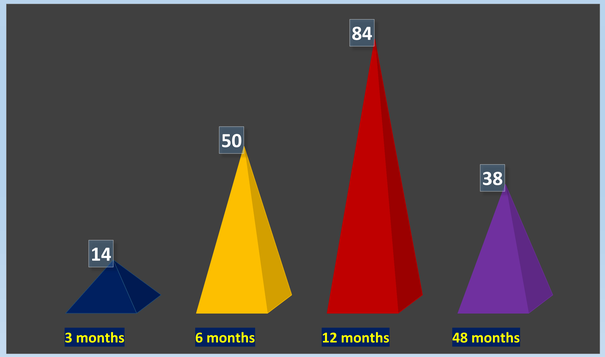


Fig 1. Timing of Post TACE HCC recurrence (n=323)

Methods

- Retrospective study
- All patients with HCC admitted from January 2010-December 2018 were enrolled

INCLUSION CRITERIA	EXCLUSION CRITERIA
➢ All the patients aged **18-65 years** with **HCC undergoing TACE** were included in the study	➢Patients with ❖ Early stage HCC undergoing resection ❖ Portal vein thrombosis ❖ Metastatic HCC ❖ ECOG ≥ 2 ❖ Child class B or C

- Post TACE recurrence was defined on the basis of **mRECIST** criteria
- **AUROC** was derived for different scores including **LMR**, **PLR**, **NLR**, **PWR** and **NLR/ALB** and at an optimal cutoff,diagnostic accuracy was calculated

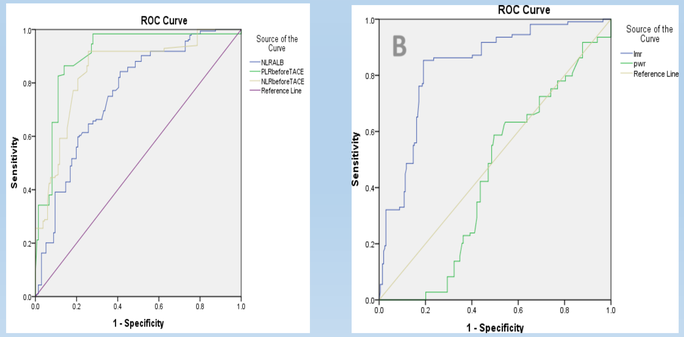


Fig 2. Overall HCC Recurrence

Results

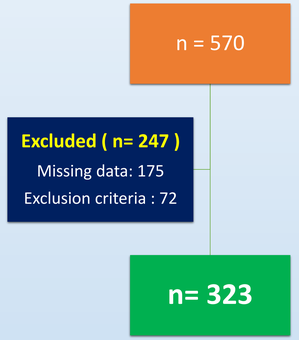
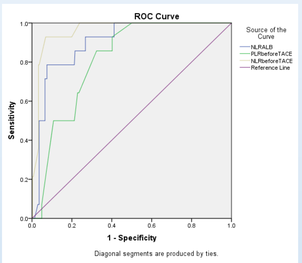


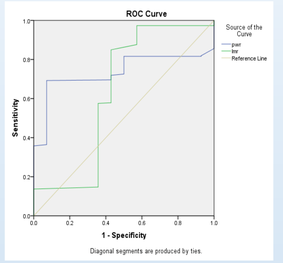
FIG 2. POST TACE HCC RECURRENCE

Statistics	LMR ≤ 3.1	PLR ≥ 3.1	NLR ≥ 1.4	NLRAB≥0.53
Sensitivity	78.7%	90.57%	83.96%	82.26%
Specificity	83.8%	66.67%	74.77%	60.74%
PPV	90.27%	83.84%	86.41%	73.21%
NPV	67.39%	78.72%	70.94%	71.05%
Diagnostic Accuracy	80.5%	82.3%	80.80%	72.45%

LMR: lymphocyte-to-monocyte ratio, **PLR:** platelet-to-lymphocyte ratio
NLR: Neutrophil-to-lymphocyte ratio, **NLR/ALB:** NLR / albumin.

Table 1-Diagnostic accuracy of different models in predicting post TACE recurrence

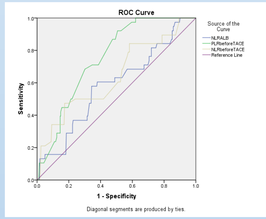


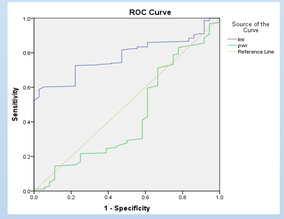


AUROC for NLR ,NLRAB and PLR was 0.96,0.90 and 0.81 respectively

AUROC for PWR and LMR was 0.74 and 0.63 respectively

Fig 3. Recurrence within six months





AUROC for NLR ,NLRAB and PLR was 0.64,0.59 and 0.71 respectively

AUROC for PWR and LMR was 0.31 and 0.78 respectively

Fig 4. Recurrence from > 6 months -2 years months

Summary of Best predictors of HCC recurrence

Conclusion

Our results demonstrated that **NLR** and **NLR/Albumin** were helpful in predicting HCC recurrence with in **3-6 months** while **PLR** and **LMR** were more useful in predicting HCC recurrence from **6 months up to 2 years**